

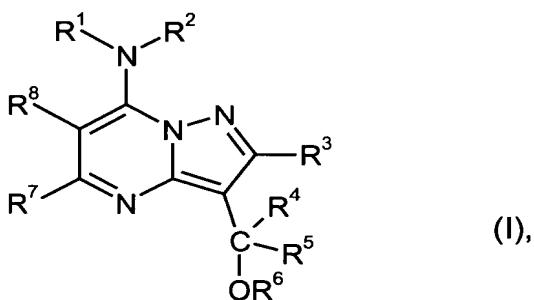
AMENDMENTS TO THE CLAIMS:

Please change the heading at page 112, line 1, from "Claims" to --WHAT IS CLAIMED IS--

The following listing of claims will replace all prior versions of claims in the application.

Claims 1-10 (canceled)

-- Claim 11 (new): A pyrazolopyrimidine of formula (I)



in which

- R¹ represents optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted cycloalkyl, or optionally substituted heterocyclyl,
- R² represents hydrogen or alkyl, or
- R¹ and R² together with nitrogen atom to which they are attached represent an optionally substituted heterocyclic ring,
- R³ represents hydrogen, halogen, optionally substituted alkyl, or optionally substituted cycloalkyl,
- R⁴ represents hydrogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkoxyalkyl, optionally substituted alkenyl, optionally substituted alkynyl, or optionally substituted benzyl,
- R⁵ represents hydrogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkoxyalkyl, optionally substituted alkenyl, optionally substituted alkynyl, or optionally substituted benzyl,

R^6 represents hydrogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkoxyalkyl, optionally substituted alkenyl, optionally substituted alkynyl, or optionally substituted benzyl, or

R^5 and $-OR^6$ together represent a radical of the formula $-\text{O}-(\text{CH}_2)_p-\text{O}-$ in which

p represents an integer from 1 to 5, and

1 to 3 hydrogen atoms are optionally replaced by methyl, ethyl, hydroxy, methoxy, ethoxy, hydroxymethyl, methoxymethyl, or ethoxymethyl,

R^7 represents halogen, CN, optionally substituted alkoxy, optionally substituted alkylthio, optionally substituted alkylsulfinyl, optionally substituted alkylsulfonyl, or optionally substituted alkyl, and

R^8 represents optionally substituted aryl.

Claim 12 (new): A pyrazolopyrimidine of formula (I) as claimed in Claim 11, in which

R^1 represents alkyl having 1 to 6 carbon atoms that is optionally mono- to pentasubstituted by identical or different substituents selected from the group consisting of halogen, cyano, hydroxy, alkoxy having 1 to 4 carbon atoms, and cycloalkyl having 3 to 6 carbon atoms; represents alkenyl having 2 to 6 carbon atoms that is optionally mono- to trisubstituted by identical or different substituents selected from the group consisting of halogen, cyano, hydroxy, alkoxy having 1 to 4 carbon atoms, and cycloalkyl having 3 to 6 carbon atoms; represents alkynyl having 3 to 6 carbon atoms that is optionally mono- to trisubstituted by identical or different substituents selected from the group consisting of halogen, cyano, alkoxy having 1 to 4 carbon atoms, and cycloalkyl having 3 to 6 carbon atoms; represents cycloalkyl having 3 to 6 carbon atoms that is optionally mono- to trisubstituted by identical or different substituents selected from the group consisting of halogen and alkyl having 1 to 4 carbon atoms; or represents saturated or unsaturated heterocyclyl having 5 or 6 ring members and 1 to 3 heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, where the heterocyclyl is optionally mono- or disubstituted by halogen, alkyl having 1 to 4 carbon atoms, cyano, nitro, and/or cycloalkyl having 3 to 6 carbon atoms,

R² represents hydrogen or alkyl having 1 to 4 carbon atoms, or

R¹ and R² together with the nitrogen atom to which they are attached represent a saturated or unsaturated heterocyclic ring having 3 to 6 ring members, where the heterocycle optionally contains a further nitrogen, oxygen, or sulfur atom as ring member and where the heterocycle is optionally substituted with one to three fluorine, chlorine, bromine, alkyl having 1 to 4 carbon atoms, and/or haloalkyl having 1 to 4 carbon atoms and 1 to 9 fluorine and/or chlorine atoms,

R³ represents hydrogen, fluorine, chlorine, bromine, iodine, alkyl having 1 to 4 carbon atoms, haloalkyl having 1 to 4 carbon atoms and 1 to 9 halogen atoms, or cycloalkyl having 3 to 6 carbon atoms,

R⁴ represents hydrogen, alkyl having 1 to 4 carbon atoms, haloalkyl having 1 to 4 carbon atoms in the alkyl moiety, cycloalkyl having 3 to 6 carbon atoms, alkoxyalkyl having 1 or 2 carbon atoms in the alkoxy moiety and 1 to 4 carbon atoms in the alkyl moiety, alkenyl having 2 to 5 carbon atoms, alkynyl having 2 to 5 carbon atoms, or benzyl,

R⁵ represents hydrogen, alkyl having 1 to 4 carbon atoms, haloalkyl having 1 to 4 carbon atoms in the alkyl moiety, cycloalkyl having 3 to 6 carbon atoms, alkoxyalkyl having 1 or 2 carbon atoms in the alkoxy moiety and 1 to 4 carbon atoms in the alkyl moiety, alkenyl having 2 to 5 carbon atoms, alkynyl having 2 to 5 carbon atoms, or benzyl,

R⁶ represents hydrogen, alkyl having 1 to 4 carbon atoms, alkoxyalkyl having 1 to 2 carbon atoms in the alkoxy moiety and 1 to 4 carbon atoms in the alkyl moiety, alkenyl having 2 to 5 carbon atoms, alkynyl having 2 to 5 carbon atoms, or benzyl, or

R⁵ and -OR⁶ together represent a radical of the formula $-\text{O}-(\text{CH}_2)_p-\text{O}-$ in which

p represents 2, 3, or 4, and

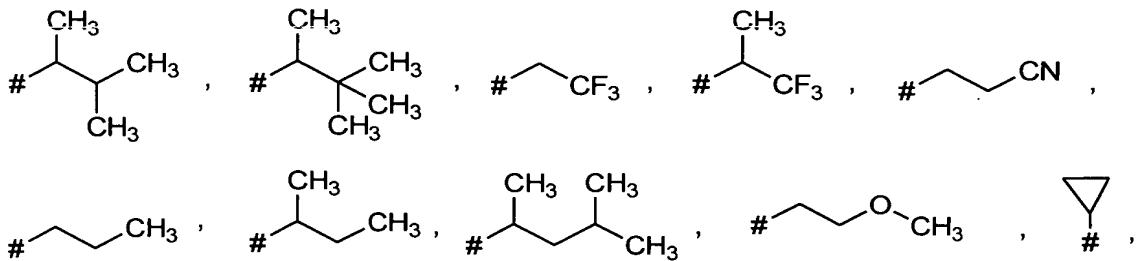
1 or 2 hydrogen atoms are optionally replaced by methyl, ethyl, hydroxy, methoxy, ethoxy, hydroxymethyl, methoxymethyl, or ethoxymethyl,

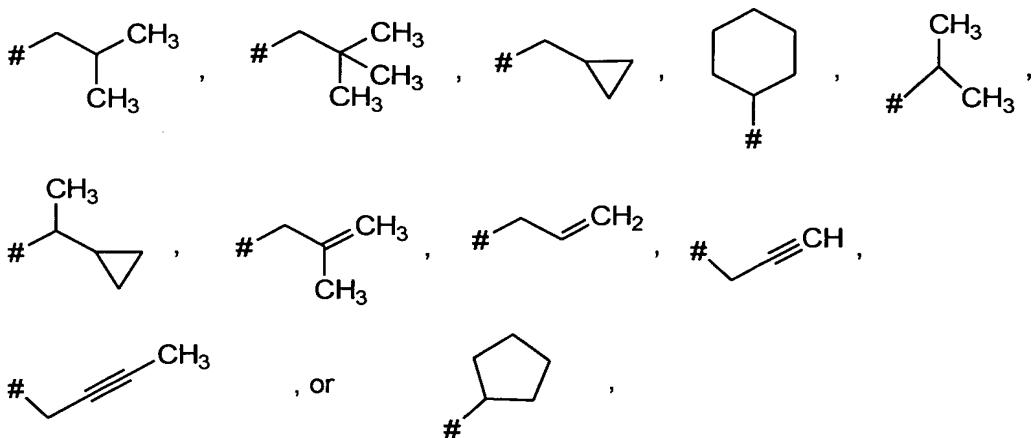
R⁷ represents fluorine, chlorine, bromine, CN, methyl, alkoxy having 1 to 4 carbon atoms, alkylthio having 1 to 4 carbon atoms, alkylsulfinyl having 1 to 4 carbon atoms, or alkylsulfonyl having 1 to 4 carbon atoms, and

R⁸ represents phenyl that is optionally mono- to tetrasubstituted by identical or different substituents selected from the group consisting of halogen, cyano, nitro, amino, hydroxy, formyl, carboxy, carbamoyl, and thiocarbamoyl, of straight-chain or branched alkyl, alkoxy, alkylthio, alkylsulfinyl, or alkylsulfonyl having in each case 1 to 6 carbon atoms, of straight-chain or branched alkenyl or alkynyl having in each case 2 to 6 carbon atoms, of straight-chain or branched haloalkyl, haloalkoxy, haloalkylthio, haloalkylsulfinyl, or haloalkylsulfonyl having in each case 1 to 6 carbon atoms and 1 to 13 identical or different halogen atoms, of straight-chain or branched haloalkenyl or haloalkenyloxy having in each case 2 to 6 carbon atoms and 1 to 11 identical or different halogen atoms, of straight-chain or branched alkylamino, dialkylamino, alkylcarbonyl, alkylcarbonyloxy, alkoxy carbonyl, alkylsulfonyloxy, hydroximinoalkyl, or alkoximinoalkyl having in each case 1 to 6 carbon atoms in the individual alkyl moieties, of cycloalkyl having 3 to 6 carbon atoms, and of 2,3-attached 1,3-propanediyl, 1,4-butanediyl, methylenedioxy (-O-CH₂-O-) or 1,2-ethylenedioxy (-O-CH₂-CH₂-O-) that are optionally mono- to polysubstituted by identical or different substituents selected from the group consisting of halogen, alkyl having 1 to 4 carbon atoms, and haloalkyl having 1 to 4 carbon atoms and 1 to 9 identical or different halogen atoms.

Claim 13 (new): A pyrazolopyrimidine of formula (I) as claimed in Claim 11 in which

R¹ represents a radical of the formula

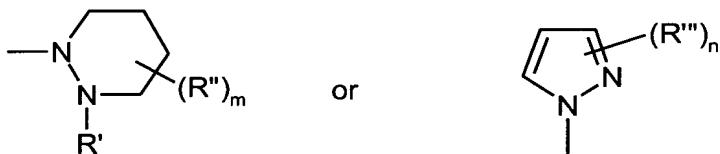




where # denotes the point of attachment and where each of the possible stereoisomers or else mixtures thereof are present for radicals that are optionally present in optically active form,

R^2 represents hydrogen, methyl, ethyl, or propyl, or

R^1 and R^2 together with the nitrogen atom to which they are attached represent pyrrolidinyl, piperidinyl, morpholinyl, thiomorpholinyl, piperazinyl, 3,6-dihydro-1(2H)-piperidinyl, or tetrahydro-1(2H)-pyridazinyl, each of which radicals is optionally substituted by 1 to 3 fluorine atoms, 1 to 3 methyl groups, and/or trifluoromethyl; or represent a radical of the formula



in which

R' represents hydrogen or methyl,

R'' represents methyl, ethyl, fluorine, chlorine, or trifluoromethyl,

m represents the number 0, 1, 2 or 3, where R'' represents identical or different radicals if m represents 2 or 3,

R''' represents methyl, ethyl, fluorine, chlorine or trifluoromethyl, and

n represents the number 0, 1, 2 or 3, where R''' represents identical or different radicals if n represents 2 or 3,

R^3 represents hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, trifluoromethyl, 1-trifluoromethyl-2,2,2-trifluoroethyl, or heptafluoroisopropyl,

R⁴ represents hydrogen, methyl, ethyl, propyl, methoxymethyl, methoxyethyl, alkenyl having 3 or 4 carbon atoms, alkynyl having 3 or 4 carbon atoms, or benzyl,

R⁵ represents hydrogen, methyl, ethyl, propyl, methoxymethyl, methoxyethyl, alkenyl having 3 or 4 carbon atoms, alkynyl having 3 or 4 carbon atoms, or benzyl,

R⁶ represents hydrogen, methyl, ethyl, propyl, methoxymethyl, methoxyethyl, alkenyl having 3 or 4 carbon atoms, alkynyl having 3 or 4 carbon atoms, or benzyl, or

R⁵ and -OR⁶ together represent a radical of the formula $-\text{O}-\text{CH}_2-\text{CH}_2-\text{O}-$ in which 1 or 2 hydrogen atoms are optionally replaced by methyl, ethyl, hydroxy, methoxy, ethoxy, hydroxymethyl, methoxymethyl, or ethoxymethyl,

R⁷ represents fluorine, chlorine, bromine, methoxy, ethoxy, methylthio, methylsulfinyl, or methylsulfonyl, and

R⁸ represents phenyl which may be mono- to trisubstituted by identical or different substituents selected from the group consisting of fluorine, chlorine, bromine, cyano, nitro, formyl, methyl, ethyl, n- or i-propyl, n-, i-, s-, or t-butyl, allyl, propargyl, methoxy, ethoxy, n- or i-propoxy, methylthio, ethylthio, n- or i-propylthio, methylsulfinyl, ethylsulfinyl, methylsulfonyl, ethylsulfonyl, allyloxy, propargyloxy, trifluoromethyl, trifluoroethyl, difluoromethoxy, trifluoromethoxy, difluorochloromethoxy, trifluoroethoxy, difluoromethylthio, difluorochloromethylthio, trifluoromethylthio, trifluoromethylsulfinyl, trifluoromethylsulfonyl, trichloroethynyl, trifluoroethynyl, chloroallyloxy, iodopropargyloxy, methylamino, ethylamino, n- or i-propylamino, dimethylamino, diethylamino, acetyl, propionyl, acetyloxy, methoxycarbonyl, ethoxycarbonyl, hydroximino-methyl, hydroximinoethyl, methoximinomethyl, ethoximinomethyl, methoximinoethyl, ethoximinoethyl, cyclopropyl, cyclobutyl, cyclopentyl, and cyclohexyl, and of 2,3-attached 1,3-propanediyl, methylenedioxy (-O-CH₂-O-) or 1,2-ethylenedioxy (O-CH₂-CH₂-O) that are optionally mono- or poly-substituted by identical or different substituents selected from the group consisting of fluorine, chlorine, methyl, ethyl, n-propyl, i-propyl, and trifluoromethyl.

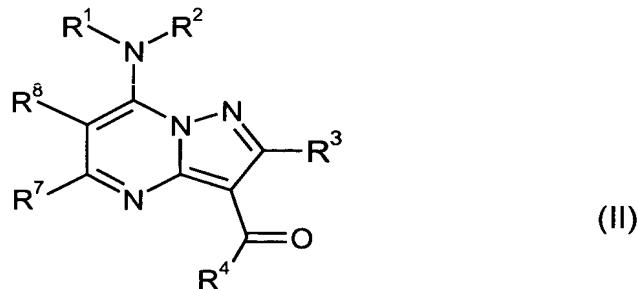
Claim 14 (new): A pyrazolopyrimidine of formula (I) as claimed in Claim 11 in which

R^7 represents fluorine, chlorine, bromine, CN, methyl, methoxy, or methylthio and

R^8 represents 2,4-, 2,5-, or 2,6-disubstituted phenyl, 2-substituted phenyl, or 2,4,6-trisubstituted phenyl, where the substituents are selected from the group consisting of fluorine, chlorine, bromine, cyano, nitro, formyl, methyl, ethyl, n- or i-propyl, n-, i-, s-, or t-butyl, allyl, propargyl, methoxy, ethoxy, n- or i-propoxy, methylthio, ethylthio, n- or i-propylthio, methylsulfinyl, ethylsulfinyl, methylsulfonyl, ethylsulfonyl, allyloxy, propargyloxy, trifluoromethyl, trifluoroethyl, difluoromethoxy, trifluoromethoxy, difluorochloromethoxy, trifluoroethoxy, difluoromethylthio, difluorochloromethylthio, trifluoromethylthio, trifluoromethylsulfinyl, trifluoromethylsulfonyl, trichloroethynyl, trifluoroethynyl, chloroallyloxy, iodopropargyloxy, methylamino, ethylamino, n- or i-propylamino, dimethylamino, diethylamino, acetyl, propionyl, acetyloxy, methoxycarbonyl, ethoxycarbonyl, hydroximinomethyl, hydroximinoethyl, methoximinomethyl, ethoximinomethyl, methoximinoethyl, ethoximinoethyl, cyclopropyl, cyclobutyl, cyclopentyl, and cyclohexyl, and of 2,3-attached 1,3-propanediyl, methylenedioxy (-O-CH₂-O-) or 1,2-ethylenedioxy (O-CH₂-CH₂-O) that are optionally mono- or polysubstituted by identical or different substituents selected from the group consisting of fluorine, chlorine, methyl, ethyl, n-propyl, i-propyl, and trifluoromethyl.

Claim 15 (new): A process for preparing pyrazolopyrimidines of formula (I) as claimed in Claim 11 comprising

(a) reacting a pyrazolopyrimidine of formula (II)



in which

R^1 , R^2 , R^3 , R^4 , R^7 , and R^8 are as defined for formula (I) of Claim 11,

either

(α) with diisobutylaluminum hydride in the presence of aqueous ammonium chloride solution and in the presence of an organic diluent or with sodium borohydride in the presence of a diluent,

or

(β) with a Grignard compound of formula (III)

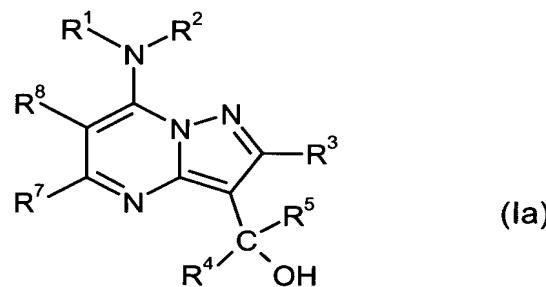


in which

R^9 represents alkyl, alkoxyalkyl, alkenyl, alkynyl, or benzyl, and X represents chlorine, bromine, or iodine,

in the presence of a catalyst and in the presence of a diluent,

to form, according to variant (α) or (β), a pyrazolopyrimidine of formula (Ia)



in which R^1 , R^2 , R^3 , R^4 , R^5 , R^7 , and R^8 are as defined for formula (I) of Claim 11,

and optionally reacting the pyrazolopyrimidine of formula (Ia) with a compound of formula (IV)



in which

R^{10} represents alkyl, alkoxyalkyl, alkenyl, alkynyl, or benzyl, and

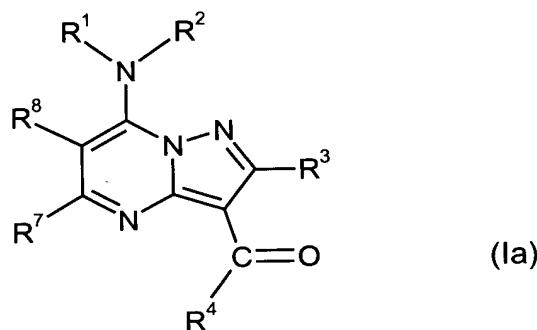
X^1 represents chlorine, bromine, iodine, or the radical



optionally in the presence of a base and optionally in the presence of a diluent,

or

(b) reacting a pyrazolopyrimidine of formula (Ia)



in which R¹, R², R³, R⁴, R⁷, and R⁸ are as defined for formula (I) of Claim 11,

with a diol of formula (V)



in which

p represents an integer from 1 to 5, and
1 to 3 hydrogen atoms are optionally replaced by methyl, ethyl,
hydroxy, methoxy, ethoxy, hydroxymethyl, methoxymethyl, or
ethoxymethyl,

in the presence of a catalyst and optionally in the presence of a diluent.

Claim 16 (new) A composition for controlling unwanted microorganisms comprising one or more pyrazolopyrimidines of formula (I) according to Claim 11 and one or more extenders and/or surfactants.

Claim 17 (new): A composition as claimed in Claim 16 additionally comprising at least one additional fungicidally or insecticidally active component.

Claim 18 (new): A method for controlling unwanted microorganisms comprising applying an effective amount of a pyrazolopyrimidine of formula (I) according to Claim 11 to the unwanted microorganisms and/or their habitats.

Claim 19 (new): A process for preparing compositions for controlling unwanted microorganisms comprising mixing one or more pyrazolopyrimidines of formula (I) according to Claim 11 with one or more extenders and/or surfactants. --